

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/005829

A. CLASSIFICATION OF SUBJECT MATTER  
(See extra sheet.)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
(See extra sheet.)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2004
Kokai Jitsuyo Shinan Koho	1971-2004	Jitsuyo Shinan Toroku Koho	1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 11-511029 A (Merck & Co., Inc.), 28 September, 1999 (28.09.99), & WO 97/22004 A & EP 870199 A & US 6242199 B	1-4
Y	JP 2002-522058 A (Merck & Co., Inc.), 23 July, 2002 (23.07.02), & WO 00/09538 A & EP 1112282 A & US 6645726 B	1-4
Y	WO 02/68600 A (ARENA PHARMACEUTICALS, INC.), 06 September, 2002 (06.09.02), & EP 1412372 A & AU 2002248497 A	1-4

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search  
03 August, 2004 (03.08.04)

Date of mailing of the international search report  
24 August, 2004 (24.08.04)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/005829

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Philip M. Murphy, A Structural Homologue of the N-Formyl Peptide Receptor, The Journal of Biological Chemistry, <u>Vol.267</u> , No.11, pages 7637 to 7643, 15 April, 1992 (15.04.92)	1-4

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Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:

a. type of material



a sequence listing



table(s) related to the sequence listing

b. format of material



in written format



in computer readable form

c. time of filing/furnishing



contained in the international application as filed



filed together with the international application in computer readable form



furnished subsequently to this Authority for the purposes of search

2. ☒ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments:

## INTERNATIONAL SEARCH REPORT

International application No.

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**Box No. II** Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 14 and 15  
because they relate to subject matter not required to be searched by this Authority, namely:  
It appears that the invention of claims 14 and 15 involves methods of treating a human body by therapy.
2. ☒ Claims Nos.: 5, 6 and 14-17  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
Although claims 5 and 6 restrict a drug ingredient compound by the wording "changing the signal transmission or linkage with a receptor protein of specified sequence or a salt thereof", the outer edge thereof is unclear. Further, the invention of claims 14-17 (continued to extra sheet)
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III** Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The receptor protein having sequence (1) per se was publicly known at the time of filing of this application. The invention of claims 1-4 is directed to a method of screening a, capable of changing linkage or signal transmission, compound, agonist or antagonist by the use of the linkage or signal transmission between receptor protein having sequence (1) and peptide having any of sequences (3) to (7).

It does not appear that there is a "special technical feature" common to the invention of claims 1-4 and the invention of claims 7-13.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-4

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

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International application No.

PCT/JP2004/005829

Continuation of Box No.II-2 of continuation of first sheet(2)

involves an agonist or antagonist and the outer edge thereof is unclear.

Continuation of A. CLASSIFICATION OF SUBJECT MATTER

(International Patent Classification (IPC))

Int.Cl<sup>7</sup> G01N33/50, G01N33/15, C12Q1/02, A61K38/17, A61K39/395,  
A61K45/00, A61K48/00, A61P1/04, A61P1/16, A61P3/10,  
A61P9/00, A61P11/00, A61P11/06, A61P19/02, A61P25/00,  
A61P25/16, A61P25/28, A61P27/00, A61P29/00, A61P31/12,  
A61P31/18, A61P35/00, A61P37/00, A61P37/08

(According to International Patent Classification (IPC) or to both national  
classification and IPC)

Continuation of B. FIELDS SEARCHED

Minimum documentation searched (International Patent Classification (IPC))

Int.Cl<sup>7</sup> G01N33/50, G01N33/15, C12Q1/02, A61K38/17, A61K39/395,  
A61K45/00, A61K48/00, A61P1/04, A61P1/16, A61P3/10,  
A61P9/00, A61P11/00, A61P11/06, A61P19/02, A61P25/00,  
A61P25/16, A61P25/28, A61P27/00, A61P29/00, A61P31/12,  
A61P31/18, A61P35/00, A61P37/00, A61P37/08

Minimum documentation searched (classification system followed by  
classification symbols)

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## A. 発明の属する分野の分類 (国際特許分類 (I P.C.))

特別ページ参照

## B. 調査を行った分野

調査を行った最小限資料 (国際特許分類 (I P.C.))

特別ページ参照

最小限資料以外の資料で調査を行った分野に含まれるもの

日本国実用新案公報	1922-1996年
日本国公開実用新案公報	1971-2004年
日本国登録実用新案公報	1994-2004年
日本国実用新案登録公報	1996-2004年

国際調査で使用した電子データベース (データベースの名称、調査に使用した用語)

## C. 関連すると認められる文献

引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
Y	JP 11-511029 A(メルク エンド カンパニー インコーポレーテッド)1999. 09. 28 & WO 97/22004 A & EP 870199 A & US 6242199 B	1-4
Y	JP 2002-522058 A(メルク アンド カンパニー インコーポレーテッド)2002. 07. 23 & WO 00/09538 A & EP 1112282 A & US 6645726 B	1-4
Y	WO 02/68600 A(ARENA PHARMACEUTICALS, INC.,)2002. 09. 06 & EP 1412372 A & AU 2002248497 A	1-4

☒ C欄の続きにも文献が列挙されている。☐ パテントファミリーに関する別紙を参照。

## \* 引用文献のカテゴリー

「A」 特に関連のある文献ではなく、一般的技術水準を示すもの  
「E」 国際出願日前の出願または特許であるが、国際出願日以後に公表されたもの  
「L」 優先権主張に疑義を提起する文献又は他の文献の発行日若しくは他の特別な理由を確立するために引用する文献 (理由を付す)  
「O」 口頭による開示、使用、展示等に言及する文献  
「P」 国際出願日前で、かつ優先権の主張の基礎となる出願

の日の後に公表された文献

「T」 国際出願日又は優先日後に公表された文献であって出願と矛盾するものではなく、発明の原理又は理論の理解のために引用するもの  
「X」 特に関連のある文献であって、当該文献のみで発明の新規性又は進歩性がないと考えられるもの  
「Y」 特に関連のある文献であって、当該文献と他の1以上の文献との、当業者にとって自明である組合せによって進歩性がないと考えられるもの  
「&」 同一パテントファミリー文献

国際調査を完了した日

03. 08. 2004

国際調査報告の発送日

24. 8. 2004

国際調査機関の名称及びあて先

日本国特許庁 (I S A / J P)

郵便番号100-8915

東京都千代田区霞が関三丁目4番3号

特許庁審査官 (権限のある職員)

宮澤 浩

2 J

9407

電話番号 03-3581-1101 内線 3251

C (続き) . 関連すると認められる文献		
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
Y	Philip M. Murphy, A Structural Homologue of the N-Formyl Peptide Receptor, The Journal of Biological Chemistry, vol. 267, no. 11, p. 7637-7643, 1992. 04. 15	1-4



## 第 I 欄 ヌクレオチド又はアミノ酸配列 (第 1 ページの 1. b の続き)

1. この国際出願で開示されかつ請求の範囲に係る発明に必要なヌクレオチド又はアミノ酸配列に関して、以下に基づき国際調査を行った。

- a. タイプ ☒ 配列表  
☐ 配列表に関連するテーブル
- b. フォーマット ☐ 書面  
☒ コンピュータ読み取り可能な形式
- c. 提出時期 ☐ 出願時の国際出願に含まれる  
☒ この国際出願と共にコンピュータ読み取り可能な形式により提出された  
☐ 出願後に、調査のために、この国際調査機関に提出された

2. ☒ さらに、配列表又は配列表に関連するテーブルを提出した場合に、出願後に提出した配列若しくは追加して提出した配列が出願時に提出した配列と同一である旨、又は、出願時の開示を超える事項を含まない旨の陳述書の提出があった。

3. 補足意見：



## A. 発明の属する分野の分類 (国際特許分類 (IPC))

Int. Cl <sup>7</sup>	G01N 33/50	G01N 33/15	C12Q 1/02	
	A61K 38/17	A61K 39/395	A61K 45/00	A61K 48/00
	A61P 1/04	A61P 1/16	A61P 3/10	A61P 9/00
	A61P 11/00	A61P 11/06	A61P 19/02	A61P 25/00
	A61P 25/16	A61P 25/28	A61P 27/00	A61P 29/00
	A61P 31/12	A61P 31/18	A61P 35/00	A61P 37/00
	A61P 37/08			

## B. 調査を行った分野

調査を行った最小限資料 (国際特許分類 (IPC))

Int. Cl <sup>7</sup>	G01N 33/50	G01N 33/15	C12Q 1/02	
	A61K 38/17	A61K 39/395	A61K 45/00	A61K 48/00
	A61P 1/04	A61P 1/16	A61P 3/10	A61P 9/00
	A61P 11/00	A61P 11/06	A61P 19/02	A61P 25/00
	A61P 25/16	A61P 25/28	A61P 27/00	A61P 29/00
	A61P 31/12	A61P 31/18	A61P 35/00	A61P 37/00
	A61P 37/08			

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